



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,061	06/18/2001	Izumi Takemoto	P66783US0	1762

136 7590 03/29/2005

JACOBSON HOLMAN PLLC  
400 SEVENTH STREET N.W.  
SUITE 600  
WASHINGTON, DC 20004

EXAMINER
BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/882,061	Applicant(s) TAKEMOTO, IZUMI	
	Examiner Jennifer A Boyd	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 8-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 8-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

*72*

## **DETAILED ACTION**

### ***Response to Amendment***

1. The Applicant's Amendments and Accompanying Remarks, filed December 21, 2004, have been entered and have been carefully considered. Claims 9 – 10 are amended, claims 19 – 26 are added and claims 1 – 2 and 8 – 26 are pending. In view of Applicant's Arguments that Labarte does not disclose a woven fabric, the Examiner withdraws the previously set forth rejection as detailed in paragraph 7 of the Office Action dated April 20, 2004. In view of Applicant's amendments, the Examiner withdraws the previously set forth rejection as detailed in paragraph 4 of the Office Action dated September 27, 2004. After an updated search, the invention as currently claimed is found to be unpatentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Objections***

3. Claim 26 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

### ***Claim Rejections - 35 USC § 112***

Art Unit: 1771

4. Claims 1, 8 – 11, 13, 15, 17, 20, 23 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2, 12, 14, 16, 18 – 19, 21 – 22, 24 and 26 are rejected as being dependent on rejected claims.

5. The claims recite the limitation “at least one of warp and weft”. It is unclear whether Applicant is using the term “warp” and “weft” to refer to a single warp or weft or is describing all the yarns of the warp or weft as collectively warp and weft respectively. For the purposes of examination at this time, the Examiner is assuming that use of the limitation “warp” or “weft” is referring to only one or more monofilaments, yarns, etc in the warp or weft and not necessarily all the monofilaments or yarns that make up the warp or weft. It is highly suggested that the Applicant amend the claim language to recite “in which all the filaments of the warp or the weft” if the Applicant intends a collective meaning of “warp” and “weft”.

***Claim Rejections - 35 USC § 103***

6. Claims 11, 13, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis (GB 2,203,342).

Ellis is directed to a radio-opaque tracer for surgical implants (Title).

Ellis teaches a woven fabric comprising high purity metals such as gold and its alloys.

The woven fabric comprises gold wire of a diameter 0.1 to 0.5 mm (page 3).

As to claims 11 and 13, it should be noted that the Examiner has given no patentable weight to “an article of apparel”. Furthermore, it has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the

Art Unit: 1771

claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

As to claims 15 and 17, it should be noted that the Examiner has given no patentable weight to “an article of garniture”. Furthermore, it has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

As to claims 11, 13, 15 and 17, Ellis discloses the claimed invention except for that the gold alloy monofilament has a diameter of 70 micrometers or less as required by claims 11 and 15 or a diameter between 30 and 70 micrometers as required by claims 13 and 17. It should be noted that the diameter is a result effective variable. For example, as the diameter increases, the wire increases in strength and can be easily identified by x-ray but if the diameter is too large, the wire becomes difficult to weave due to stiffness. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create the monofilament with a diameter of 70 micrometers or less as required by claims 11 and 15 or a diameter between 30 and 70 micrometers as required by claims 13 and 17, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the diameter of the wire to create a woven fabric suitable for implanting in the body which is easy to manufacture and of sufficient strength.

As to claims 11 and 15, although Ellis does not explicitly teach that the claimed monofilament tensile strength is 0.12 to 6.5 N as required by claims 11 and 15, it is reasonable to presume that monofilament tensile strength is 0.12 to 6.5N as required by claims 11 and 15 is inherent to Ellis. Support for said presumption is found in the use of like materials (i.e. a gold alloy wire woven fabric with a diameter of 70 micrometers or less), which would result in the claimed property. The burden is upon the Applicant to prove otherwise.

7. Claims 1 – 2, 8 and 11 – 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis (GB 2,203,342) in view of Ogasa (US 6,077,366).

Ellis is directed to a radio-opaque tracer for surgical implants (Title).

Ellis teaches a woven fabric comprising high purity metals such as gold and its alloys. The woven fabric comprises gold wire of a diameter 0.1 to 0.5 mm (page 3). It should be noted that the Examiner has given no patentable weight to “an article of apparel” and “an article of garniture”. See explanation in rejection above.

As to claims 1, 8, 12, 14, 16 and 18, Ellis fails to teach the composition of the gold alloy as containing at least 99.7% gold and a trace of an element chosen from the group consisting of gadolinium and calcium.

Ogasa is directed to a process for producing high-purity hard gold alloys (Title). Ogasa notes that the high-purity hardened alloy may be used in products such as medical parts (column 4, lines 45 – 47). Ogasa teaches a high-purity gold comprising a gold content of at least 99.7% or

Art Unit: 1771

more by weight and containing 50 ppm or more of Gd (gadolinium) (column 2, lines 30 – 60).

The Examiner equates containing 50 ppm or more of Gd to having a “trace of an element”.

Ogasa notes that the high-purity gold that has improved hardness, tensile strength and heat resistance (column 2, lines 55 - 60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the woven metal mesh of Ellis comprising the gold alloy of Ogasa motivated by the desire to create a material that has improved hardness, tensile strength and heat resistance which is highly suitable for medical products.

As to claims 1, 8, 11, 13, 15 and 17, Ellis in view of Ogasa discloses the claimed invention except for that the gold alloy monofilament has a diameter of 70 micrometers or less as required by claims 1, 11 and 15 or a diameter between 30 and 70 micrometers as required by claims 8, 13 and 17. It should be noted that the diameter is a result effective variable. For example, as the diameter increases, the wire increases in strength and can be easily identified by x-ray but if the diameter is too large, the wire becomes difficult to weave due to stiffness. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create the monofilament with a diameter of 70 micrometers or less as required by claims 1, 11 and 15 or a diameter between 30 and 70 micrometers as required by claims 8, 13 and 17, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the diameter of the wire to create

Art Unit: 1771

a woven fabric suitable for implanting in the body which is easy to manufacture and of sufficient strength.

As to claims 1, 2, 11 and 15, although Ellis in view of Ogasa does not explicitly teach that the claimed monofilament tensile strength is 0.12 to 6.5 N as required by claims 1, 11 and 15 and the monofilament elongation is 1.5% or more as required by claim 2, it is reasonable to presume that monofilament tensile strength is 0.12 to 6.5N as required by claims 1, 11 and 15 and the monofilament elongation is 1.5% or more as required by claim 2 is inherent to Ellis in view of Ogasa. Support for said presumption is found in the use of like materials (i.e. a gold alloy wire woven fabric with a diameter of 70 micrometers or less), which would result in the claimed properties. The burden is upon the Applicant to prove otherwise.

8. Claims 9 – 10 and 19 – 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the article entitled “Ancient Russian Ecclesiastical Embroideries” by Eugenia Tolmachoff in view of JP 62078228A.

As to claims 9 – 10, 19, 21, 23 and 25, the article is directed to a historical study of ancient Russian Embroideries. The article teaches that as an embroidery material gold first appeared in the form of a wire (page 18). Russian embroidery in general is made up of colored silks and metal threads laid flat on the ground and caught down by short traversal stitches in silk (page 20). The article discusses a material called *altabas* which is a silk fabric in a twill weave with one and two wefts, on which was a gold wire (page 21). It is known in the art to alloy gold to increase its strength; it should be noted that the gold discussed in the article must be alloyed



Art Unit: 1771

because pure gold would be too soft to be effectively used. The Examiner equates the gold wire to Applicant's "gold alloy metal monofilament" and the silk to Applicant's "ordinary yarn".

The article fails to teach that the gold monofilament has a diameter of 70 micrometers or less as required by claims 9 and 24 or a diameter between 30 – 70 micrometers as required by claims 10 and 25 - 26.

JP 62078228A teaches the use of gold threads for decorative knitted or woven fabrics. The gold wires of high purity are twisted into gold thread. The diameter of the wires is 0.05 to 0.2 millimeters (50 – 200 micrometers) (Abstract).

It would have been obvious to one of ordinary skill in the art to use wires having a diameter between 0.05 to 0.2 millimeters (50 – 200 micrometers) as suggested by JP 62078228A in the tapestry material of "Ancient Russian Ecclesiastical Embroideries" motivated by the desire to use a sufficiently small diameter gold wire to create an ornate decorative woven fabric.

As to claims 9 and 24, although the article entitled "Ancient Russian Ecclesiastical Embroideries" by Eugenia Tolmachoff in view of JP 62078228A does not explicitly teach that the claimed monofilament tensile strength is 0.12 to 6.5 N as required by claims 9 and 24, it is reasonable to presume that monofilament tensile strength is 0.12 to 6.5N as required by claims 9 and 24 is inherent to "Ancient Russian Ecclesiastical Embroideries" by Eugenia Tolmachoff in view of JP 62078228A. Support for said presumption is found in the use of like materials (i.e. a gold alloy wire woven fabric with a diameter of 70 micrometers or less), which would result in the claimed properties. The burden is upon the Applicant to prove otherwise.

“Ancient Russian Ecclesiastical Embroideries” by Eugenia Tolmachoff in view of JP 62078228A discloses the claimed invention except for that the warp and weft monofilaments are different from each other in diameter as required by claims 20, 22 – 23 and 25. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create a fabric where the warp and weft monofilaments are different from each other in diameter since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice. *In re Leshin*, 125 USPQ 416. In the present invention, one would have been motivated to create a fabric where the warp and weft monofilaments are different from each other in diameter in order to create a fabric with a desired texture, hand and appearance. Furthermore, it is known that silk monofilaments and gold monofilaments can be made in a variety of diameter ranges only limited by the processing limitations.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

According to Encyclopedia Britannica, the term “kimkhwab” is defined as an Indian brocade woven of silk and gold or silver thread. Kimkhwabs are classified according to the amount of gold and silver used: some are woven entirely from the two precious metals; in some, colored silk thread is used sparingly to accent the design; and in others most of the work is done in silk thread, the gold and silver being sparingly used. The article notes that kimkhwab was extremely popular during the Mughal period (1556 – 1707). This article demonstrates that it has

Art Unit: 1771

been well known in the art since the 1500s to use silk and gold threads to create decorative woven fabrics.

According to Encyclopedia.com, the term “cloth of gold” is defined as a fabric woven wholly or partly of gold threads. Further information from the article: From remote times gold has been used as material for weaving alone or with other fibers. In India, tapestries were made from gold threads as fine as silk. Cloth of gold was woven on Byzantine looms from the 7<sup>th</sup> to the 9<sup>th</sup> century and on those of Sicily, Cyprus, Lucca and Venice since the 10<sup>th</sup> century. One particular fabric called “baldachin” which is a fine cloth with gold warp and silk weft was used in ceremonially in England. The gold thread used either comprised flattened or rounded gold wire or a core yarn wound with a thin metal thread. This article demonstrates that that it has been well known in the art since the 7<sup>th</sup> century to create woven fabric of wholly or partly of gold threads.

The article “Metallic Threads – A Background to Their Use in Textile Work” by Gina Barrett discusses the use of gold as embellishment in textiles. The article teaches that drawn wire was one form of metal used in textile work. The publication date of the article is unknown.

The article “A Practical Examination of Wefts used in Medieval Brocaded Tabletweaving” explores the use of a variety of brocade wefts similar or like those which were used in medieval tabletweaving. The article discusses the use of drawn gold solid metal wefts which have been found in a number of Anglo-Saxon as well as Viking burials. The width and thickness of the metal wefts range in width from about .25 mm to 2.0mm with a thickness of sometimes less than 0.1mm. The article notes that most documented brocaded bands have a silk thread base. The publication date of the article is April 2004.


Art Unit: 1771


JP 11189949 A is directed to a woven lace textile comprising gold or silver threads and silk threads. A complete translation of the reference has been ordered and should be available upon mailing of the next Office Action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jennifer Boyd  
March 19, 2005

  
**Ula C. Ruddock**  
Primary Examiner  
Tech Center 1700